

Work Order ID 84687

84687

Page 1

Item ID: D4278-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Upper Rib Assembly-Hoop

Start Date: 17/05/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 31/05/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan: MLJ

Date: 12/05/17

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4034	B								
D4278	C								

100 Weld per dwg A/R S.S. rod Batch: M121602 0.00

100

Large Fab

Large Fab

Memo

0.00

1- Assemble ribs to hoop and weld as per dwg DT 9564

2- Weld bushing in rib and grind weld flush as per dwg

CC 12-5-31

110

QC9- Inspect visual per QSI004- Fusion Welds

0.00

110

QC

Quality Control

Memo

0.00

CP 12-05-31 4x Ø

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 84687

84687

Page 2

May-17-12 4:06:50 PM

Item ID: D4278-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Upper Rib Assembly-Hoop
 Start Date: 17/05/2012 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 31/05/2012 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC5- Inspect part completeness to step on W/O 0.00

120

QC

Memo

Quality Control

130 Identify as per dwg & Stock Location: WA 0.00

130

Packaging

Memo

Packaging

STOCK IN BASKET CELL

140 QC21- Final Inspection - Work Order Release 0.00

140

QC

Memo

Quality Control

8/26/31

CPL 12-06-01 4x

12/6/47
MF
12-06-01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

May-17-12 4:06:53 PM

Page 1

Work Order ID: 84687

84687

Parent Item: D4278-041

D4278-041

Parent Item Name: Upper Rib Assembly-Hoop

Start Date: 17/05/2012

Required Date: 31/05/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A 10.11.12 new issue DD verf:EC
11.01.20 AS PER DWG REV.C DD verf:EC

IPP Rev:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4021-7		Manufactured	No			100	Each	8.0000	1	4			
Hoop									**			100 12-5-31	

Location

Loc Qty

Loc Code

WA005

8

84716 →

(4)

82704

3

82976

5

D4021-9		Manufactured	No			100	Each	93.0000	4	16			
D4021-9									**			SAD 12-05-22	
Bushing													

Location

Loc Qty

Loc Code

WA

83

66437

0

72482

0

82348

19

84047

64

WA005

10

B 84049

2

14

66437

2

70333

4

72482

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

May-17-12 4:06:53 PM

Page 2

Work Order ID: 84687

84687

Parent Item: D4278-041

D4278-041

Parent Item Name: Upper Rib Assembly-Hoop

Start Date: 17/05/2012

Required Date: 31/05/2012

Start Qty: 4.00

Required Qty: 4.00

D4034-1

Manufactured No

100

Each

18.0000

1

4

D4034-1

Rib

**

SAD 12-05-22



Location

Loc Qty

Loc Code

WA

-14

81145

10

82260

6

WA006

32

82259

2

100

Each

0.0000

1

4

D4034-3

Manufactured No

D4034-3

Rib

**

SAD 12-05-22

B82981

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

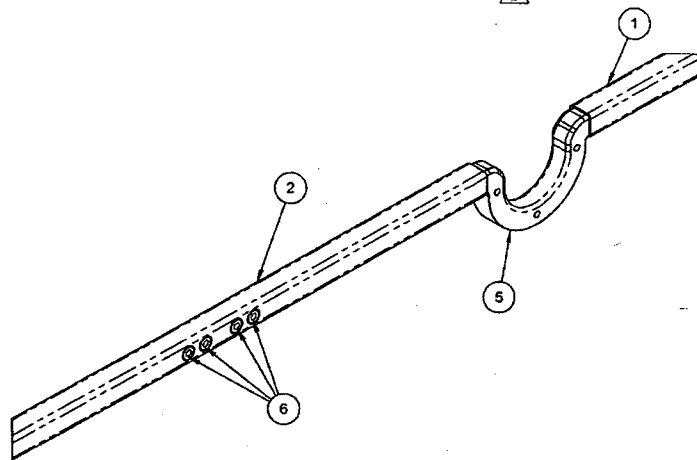
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

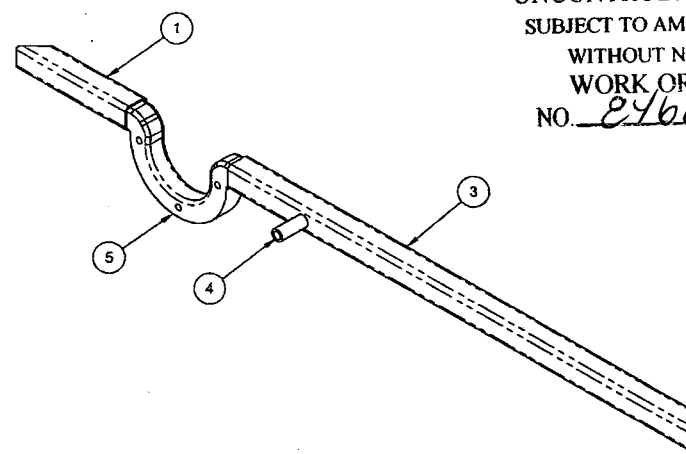
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
	X		D4034-041	AFT UPPER RIB ASSY
		X	D4034-043	FWD UPPER RIB ASSY
1	1	1	D4034-1	RIB
2	1		D4034-3	RIB
3		1	D4034-5	RIB
4		1	D2327-3	SPACER BUSHING
5	1	1	D4021-7	HOOP
6	4		D4021-9	BUSHING



D4034-041 AFT UPPER RIB ASSY



D4034-043 FWD UPPER RIB ASSY

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 84687 ML5
12/05/17

RELEASED
R 2011-01-18
MB

B	ADDITIONAL HOLES ADDED ON D4034-3 RIB	SC	10.12.20
A	NEW ISSUE	AJS	10.03.04
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	B	DRAWING NO.	REV. B
MFG. APPR.	MB	D4034	SHEET 1 OF 4
APPROVED	MB	TITLE	SCALE
DE APPR.	MB	UPPER RIB ASSY, BASKET BASE	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

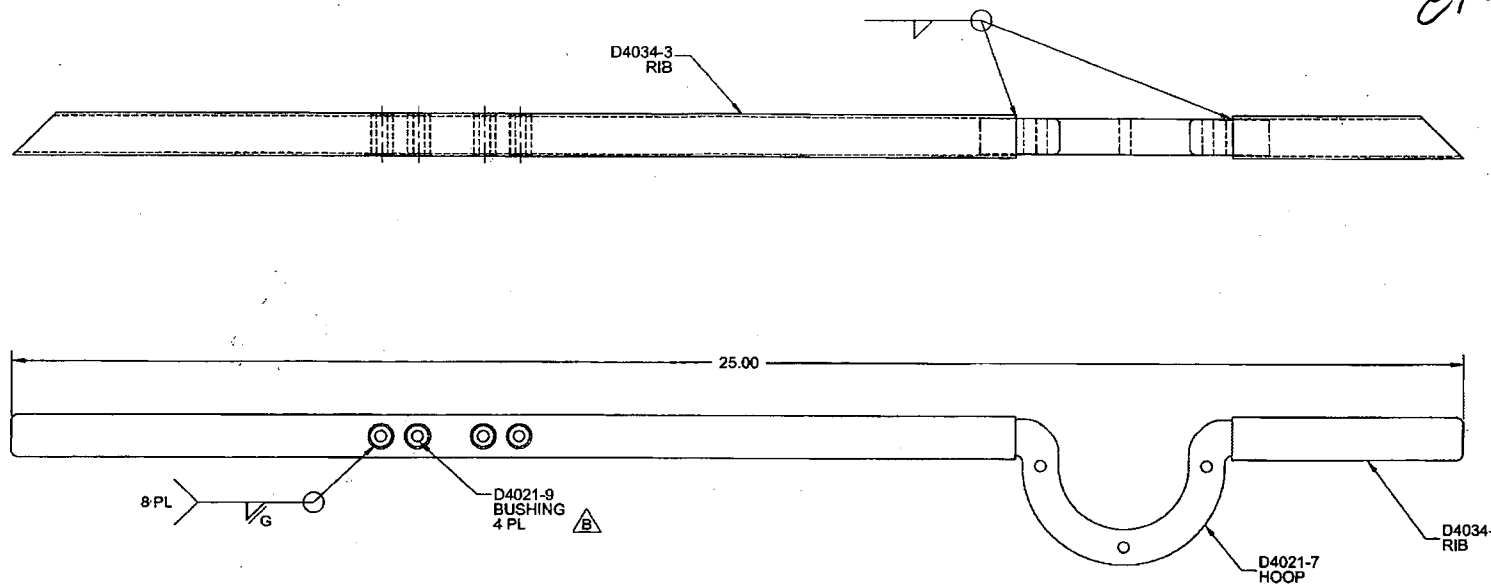
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

24687



D4034-041 AFT UPPER RIB ASSY

RELEASED
2011-01-18

- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 1.61 lbs
 - 8) WELD PER DART QSI 004

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	JS	DRAWING NO.	REV. B
MFG. APPR.	JS	D4034	SHEET 2 OF 4
APPROVED	JS	TITLE	SCALE
DE APPR.	JS	UPPER RIB ASSY, BASKET BASE	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

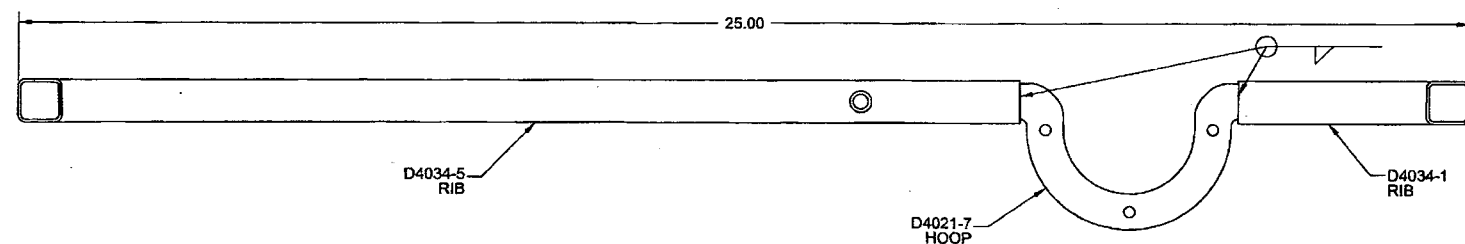
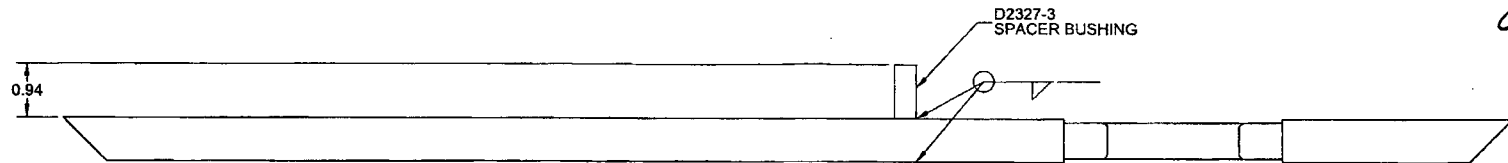
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



84687



D4034-043 FWD UPPER RIB ASSY

RELEASED
2011-01-18

- NOTES:**
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 1.58 lbs
 - 8) WELD PER DART QSI 004

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	Is	DRAWING NO.	REV. B
MFG. APPR.		D4034	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		UPPER RIB ASSY, BASKET BASE	NTS
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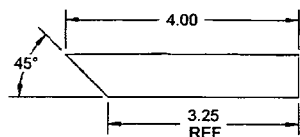
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

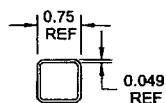
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

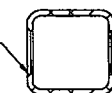
NOTE: Date & initial all entries



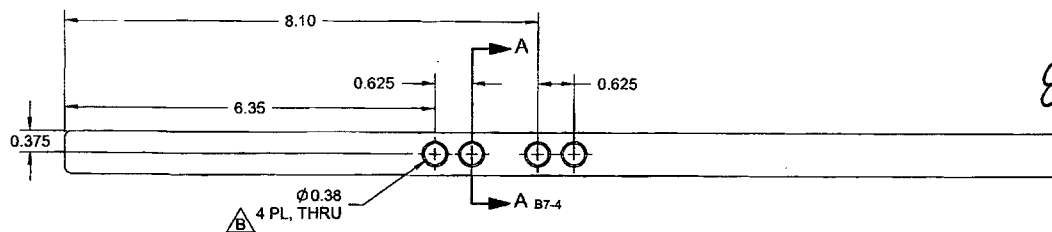
D4034-1 RIB



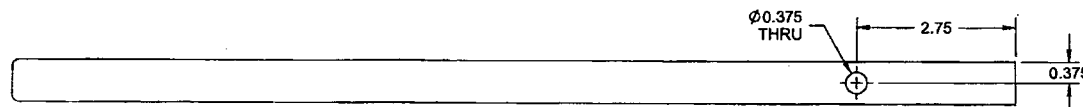
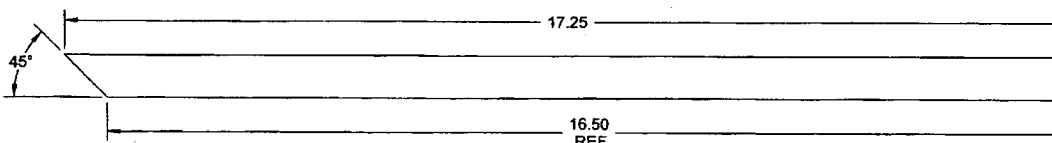
BREAK EDGE
0.030 X 45°
TYP



SECTION A-A D4-4



D4034-3 RIB



D4034-5 RIB

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SQUARE TUBE, 0.75 X 0.75 X 0.049 WALL
REF DART SPEC. M304TS0.750W.049
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT -1: 0.13 lbs
-3 & -5: 0.62 lbs

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	SC	DRAWING NO.	REV. B
MFG. APPR.	SC	D4034	SHEET 4 OF 4
APPROVED	SC	TITLE	SCALE
DE APPR.	SC	UPPER RIB ASSY, BASKET BASE	NTS
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2011-01-10

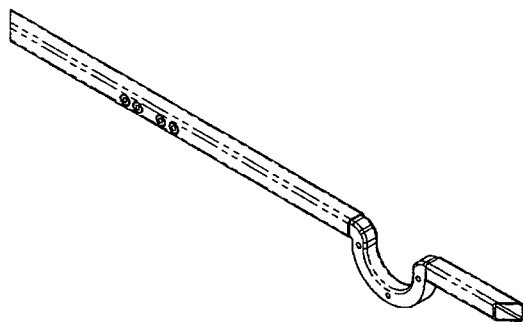
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

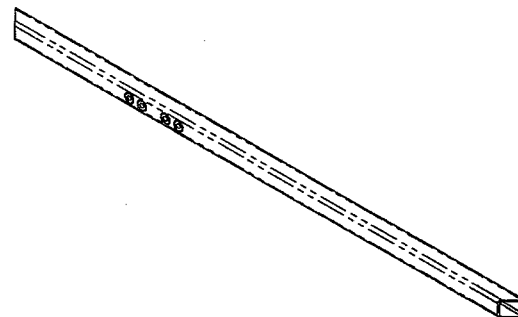
NOTE: Date & initial all entries



D4278-041 UPPER RIB ASSY-HOOP



D4278-045 RIB ASSY, FWD CHAM



D4278-047 UPPER RIB ASSY-STRAIGHT

24687

RELEASED
2011-01-18
MM

C	ADDITIONAL HOLES ADDED IN D4278-041-047	SC	10.12.23
B	RMV -043 (OBSOLETE)	CP	10.11.30
A	NEW ISSUE	SC	10.11.25
REV.	DESCRIPTION	BY	DATE
DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4278	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		RIB ASSEMBLY	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

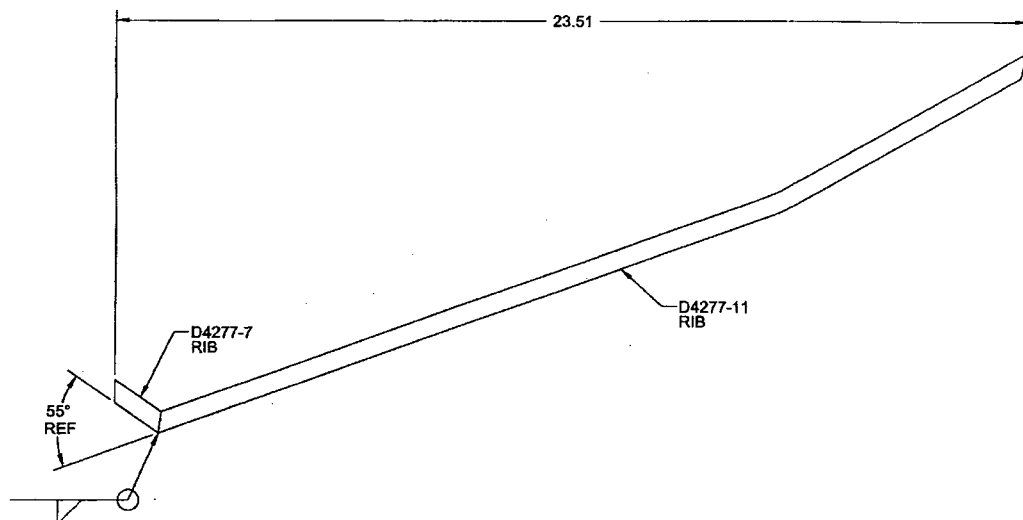
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY	PART NUMBER	DESCRIPTION
		D4278-045	RIB ASSY, FWD CHAM
1	1	D4277-7	MD CORNER RIB, NOTCH
2	1	D4277-11	MID DIAG RIB



D4278-045 RIB ASSY, FWD CHAM

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.57 lbs
- 8) WELD PER DART QSI 004.

DESIGN	JRH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO. D4278	REV. C
MFG. APPR.			SHEET 3 OF 4
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DATE	10.12.23		

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2011-01-18

24.608

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

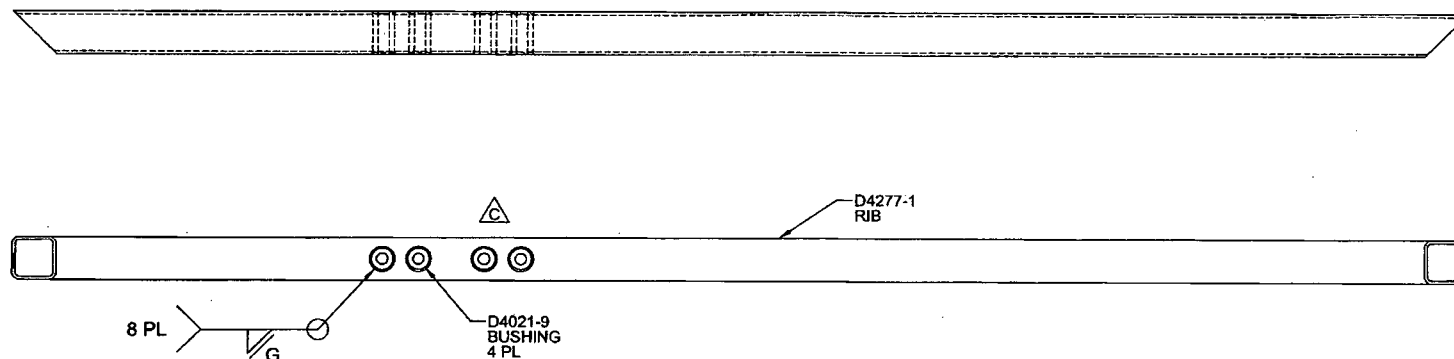
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NOTE: Date & initial all entries

ITEM	QTY	PART NUMBER	DESCRIPTION
	-047		
		D4278-047	UPPER RIB ASSY-STRAIGHT
1	4	D4021-9	BUSHING
2	1	D4277-1	RIB



D4278-047 UPPER RIB ASSY-STRAIGHT

RELEASED
2011-01-10

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.95 lbs
- 8) WELD PER DART QSI 004.

DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4278	SHEET 4 OF 4
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